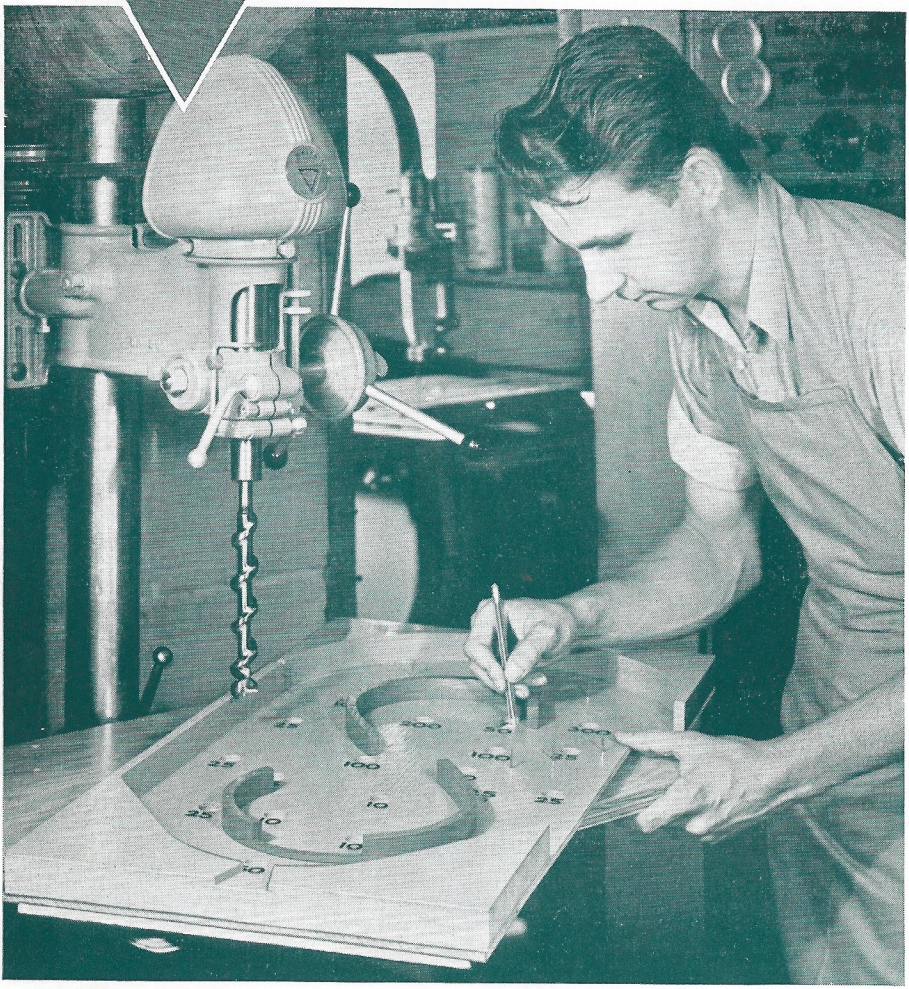
The DELTAGRAM

OCTOBER - 1937



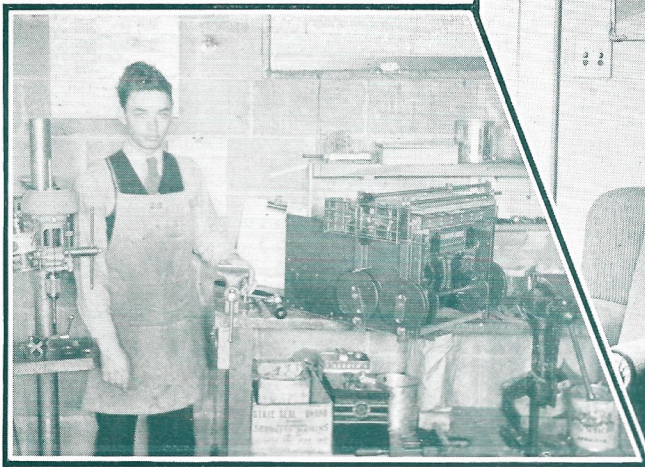
10¢

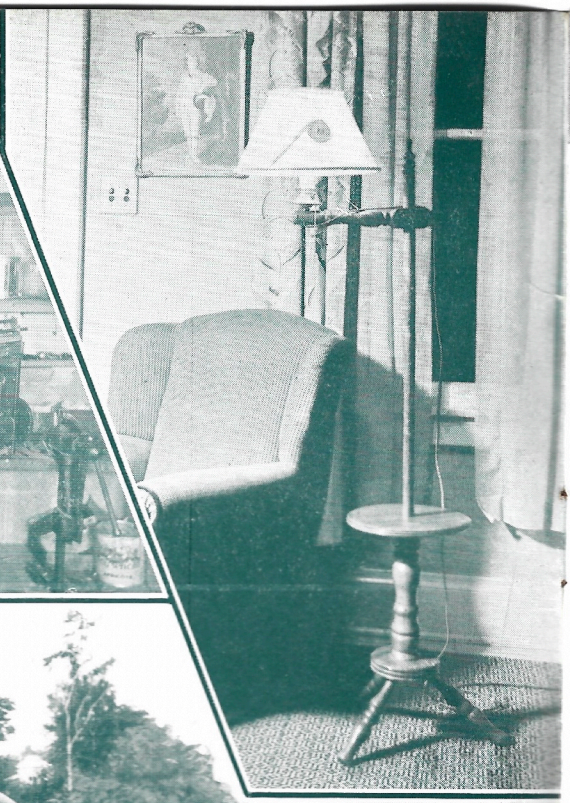
VOL. 7
No. 1

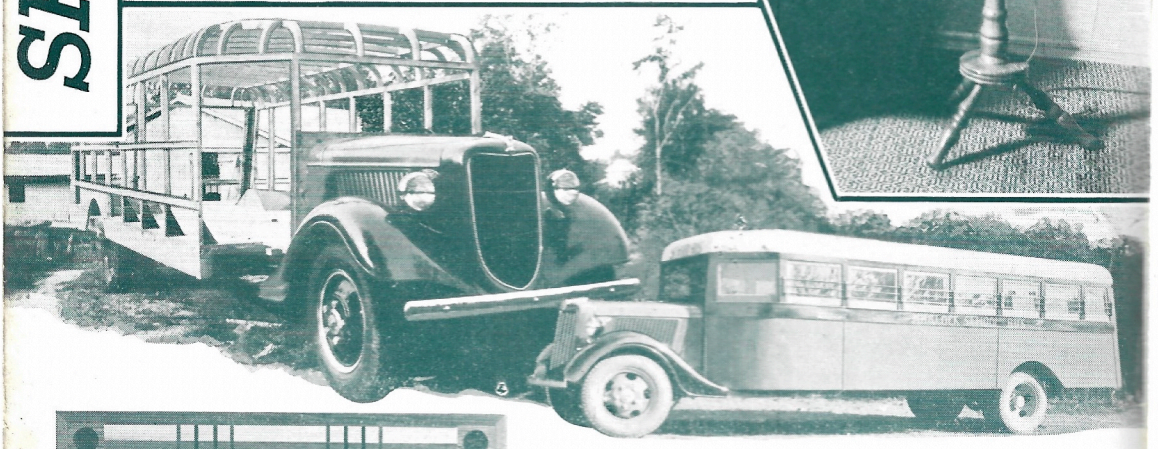
Bumper — An Action Marble Game

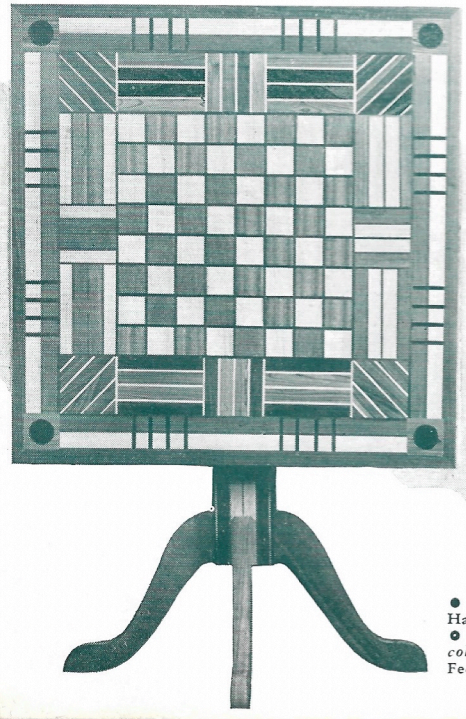
NOVELTY TURNINGS • MODERN DESK • FOLDING SCREENS

SHOPPING AROUND



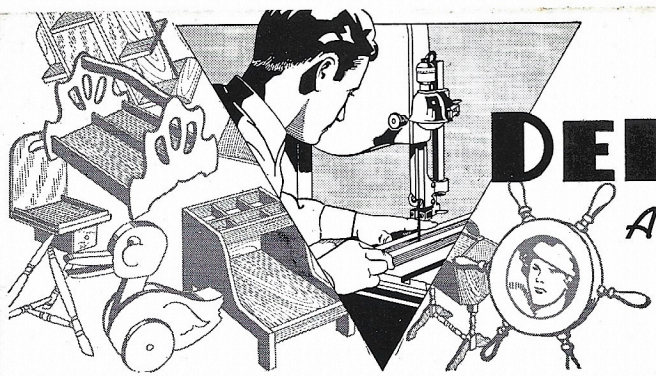






● C. O. Dedmore made the *inlaid card table.* The checkerboard is ¾ in. stock walnut and cottonwood and "goes right through." ● Clyde V. Simpson, San Francisco, Calif., contributes the *folding baggage rack* made from camagon, a Philippine hardwood.

● Photo at top shows a *test paper checking machine* built by S. R. Harding, Aberdeen, S. D. It checks 200 questions in five seconds. ● Archie J. McGill, Winona, Minn., is the builder of the attractive *colonial lamp.* ● The *school bus* is the product of M. P. Tipton, Federalsburg, Md.



The DELTAGRAM

A Magazine for Craftsmen

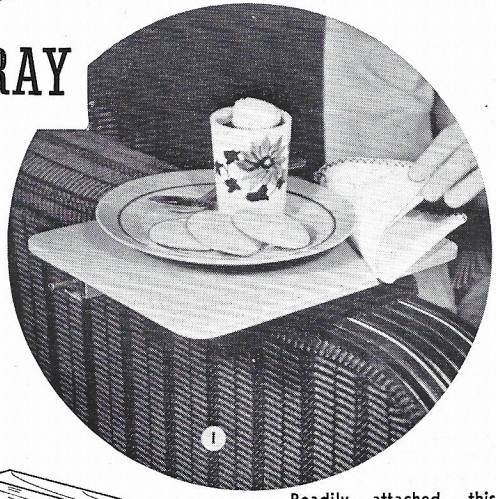
Edited by
SAM BROWN

Vol. 7 OCTOBER, 1937 No. 1

Clamp-on CHAIR TRAY

IF YOU have ever tried to juggle a drinking glass or an ash tray on the arm of an overstuffed chair, you will appreciate the merits of this simple clamp-on chair tray. Of course, some pessimist will immediately stand up and say it is more bother to get the thing and put it on, etc.; nevertheless, it comes in handy.

Make the tray first, using ¼ or 5/16 in. plywood. 8 by 10-in. is a good size for an ash tray, drinking glass, or small sandwich plate. 10 by 12 is a better size for a plate and a drink. Round the corners and take off all sharp edges with sandpaper. Next, make the two arms. One of these is fastened permanently to the underside of the tray, about 1 in. from the end, using finishing nails. The shape of the arms should conform somewhat to the shape of the chair arm for which it is intended. Most modern furniture runs to flat arms and can use the style of arm shown. In either case, do not neglect the small hook at the bottom. This more or less grips the fabric of the chair covering and prevents the tray from tipping.



Readily attached, this chair tray makes refreshment serving simple.

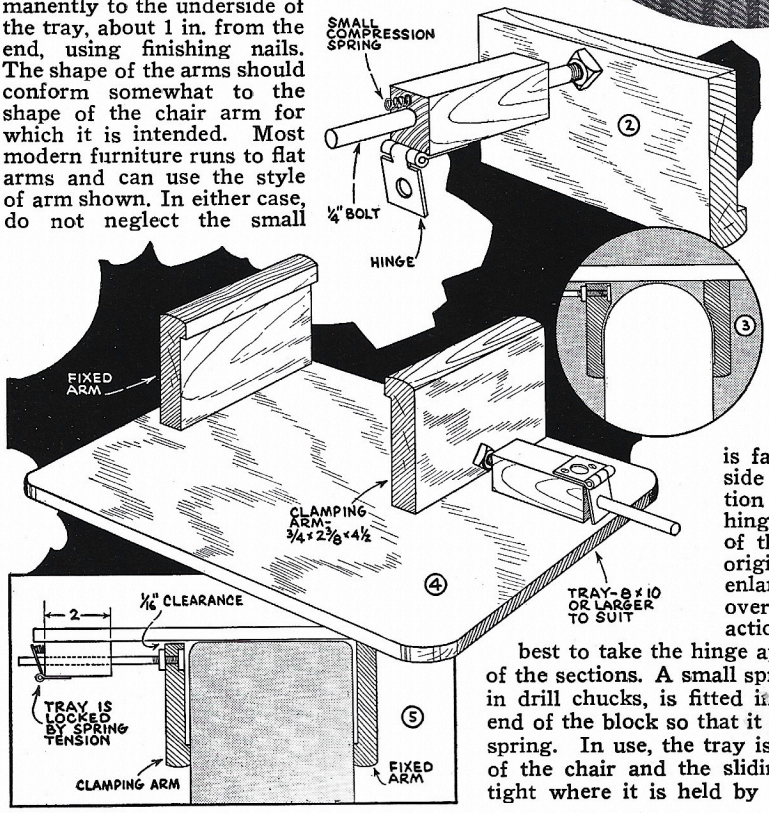


Fig. 2 shows the working portion of the tray—the sliding arm. This is held in place by means of a ¼ in. bolt which is a sliding fit in a hole drilled through a 2 in. long block which is fastened to the underside of the tray. A section cut from an ordinary hinge is fitted at the end of this block, one of the original screw holes being enlarged to exactly fit over the bolt. The hinge action must be free. It is best to take the hinge apart and drill out one of the sections. A small spring, such as are used in drill chucks, is fitted in a small hole in the end of the block so that it will press against the spring. In use, the tray is placed over the arm of the chair and the sliding arm is pushed up tight where it is held by spring pressure.

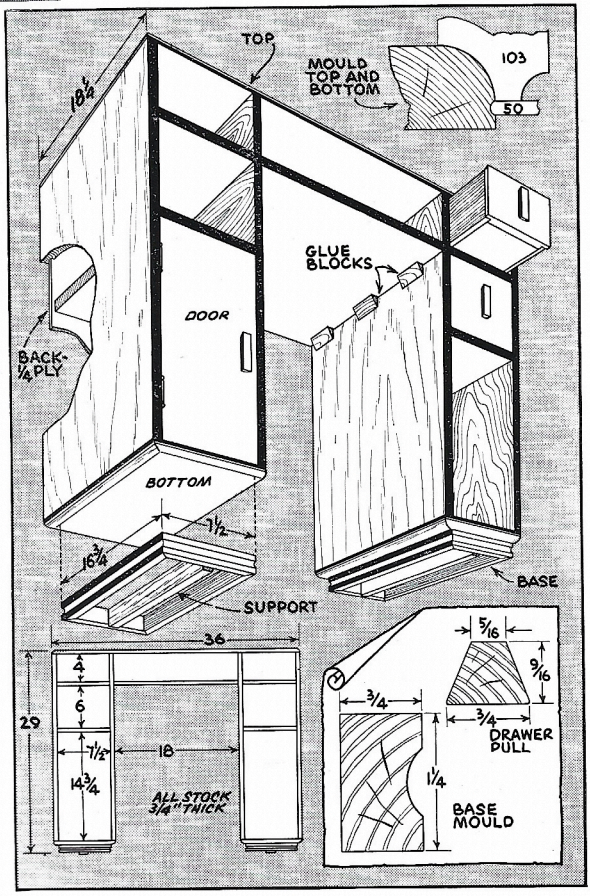
MODERN DESK

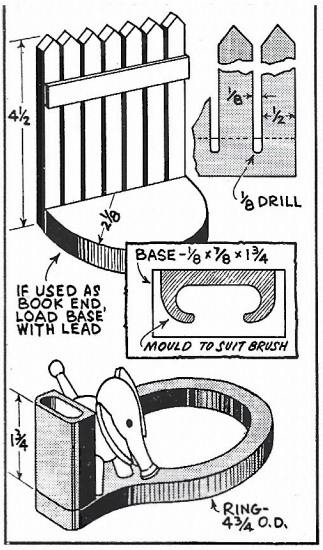
OF simple construction, this makes a pleasing piece of furniture if finished bright, or, if for a den or boy's room, it is attractive and somewhat less expensive to make if lacquered or painted. In either case, the construction can be the same, although the use of wide plywood panels is less necessary where the paint finish is contemplated.

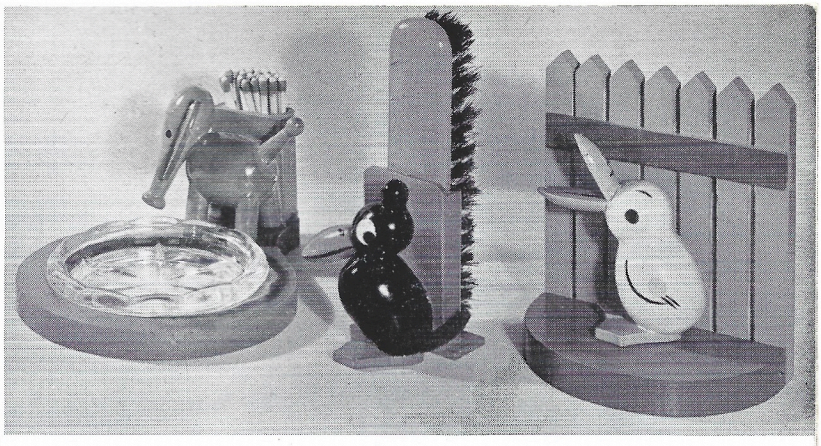
Most of the work is done on the circular saw. The stock can be either ¾ in. plywood, good-one-side, or clear white pine in 10 in. widths. If plywood is used, it can be purchased faced with hardwood on one side and with the other side backed with some less expensive wood. The use of plywood gives nice smooth surfaces, simplifies construction, and its one drawback—the matter of the edges—is readily overcome by painting the edges black. If white pine or some other solid stock is used, it must be glued up to width before working. White pine construction recommended for a paint finish.

The method of assembly should be fairly apparent from the worm's-eye view. The two side units are made up first, using short dowels at the joints, or simply nailing if a paint finish is to be used. The piece for the top is then cut to size and moulded all around with the mould shown in the drawing. The two bottoms are cut and stuck with the same moulding. The base is made from ¾ by 1¼ in. stock, with a cove cut in the center, as shown in the detail. The pieces are mitered together and screw-fastened to the bottom from the underside. It will be noticed that the desk does not actually rest upon these base pieces, but is supported by two blocks which are located in the center of each base frame. This eliminates any tendency toward rocking.

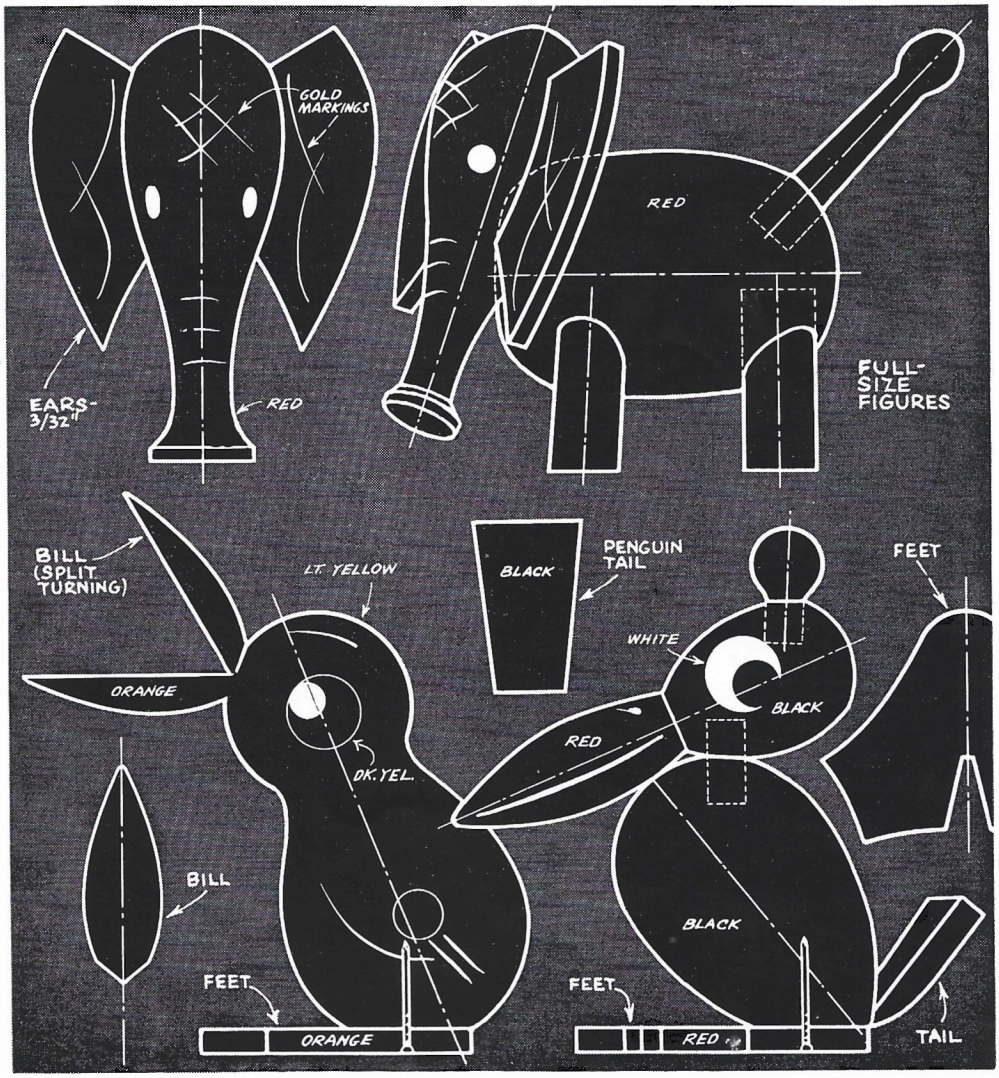
Details in the way of door and drawer construction follow standard practice and should offer no difficulties. If you do not know exactly how to proceed here, consult some older story which shows how drawers and doors are fitted. The drawer pulls are cut to the shape indicated and are fastened with screws from the inside of the drawer fronts. They are painted black. All edges are also black. The small cove in the top and bottom is painted with light cream paint. All flat surfaces are bright unless paint is being used, in which case they should contrast with the edges and mould trim.



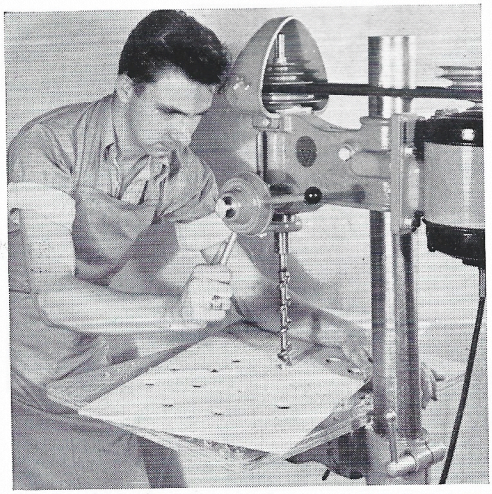




Novelty TURNINGS



Bumper — An

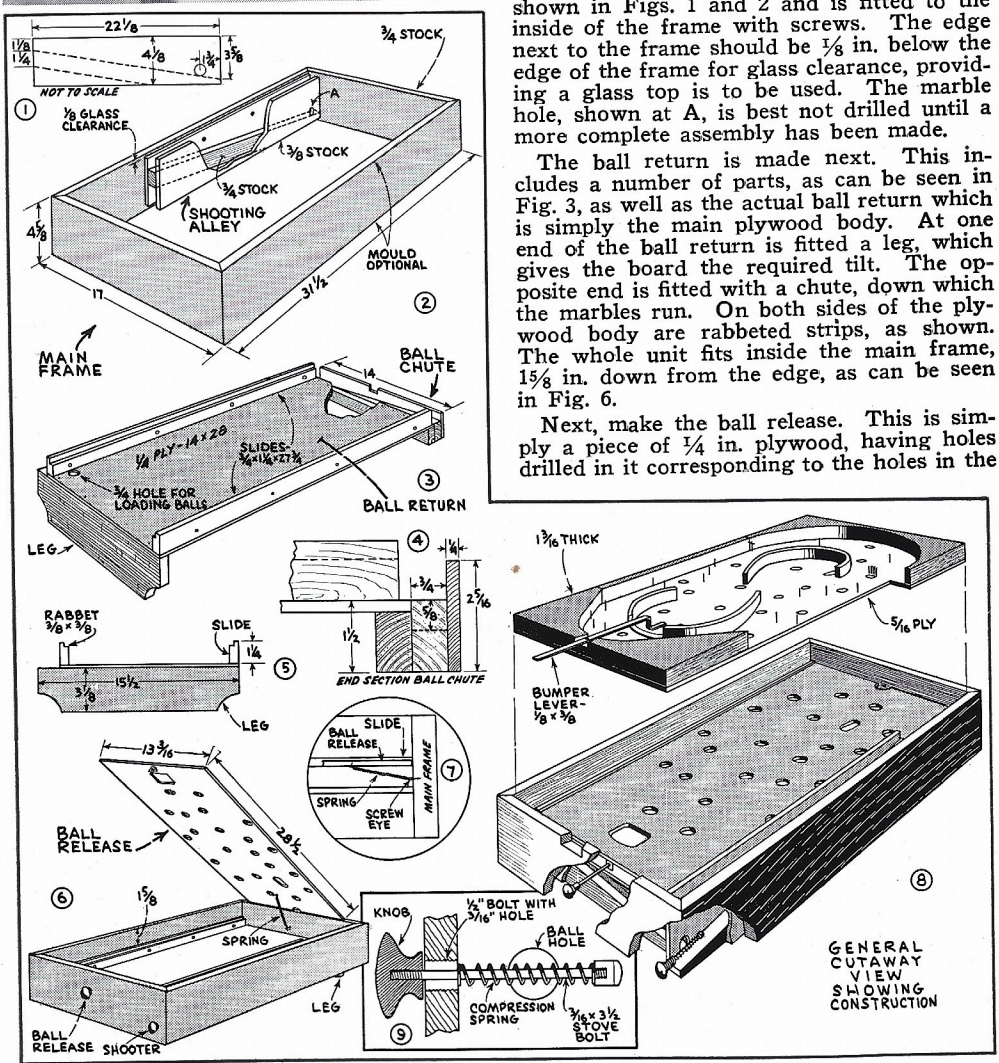


MARBLE games, which have coaxed a countless number of nickels from the pockets of the American public, are really a lot of fun in their own rights and well worth a place in the equipment of the home game-room. In the action type of game, of which this is a simple example, the ball is again put into play after being fired up the shooting alley, the action mechanism in this case being a lever or "bumper" which is operated manually, giving the player a chance at high score holes.

The construction is started by making the main frame, as shown in Fig. 2. A small ogee mould was run around both top and bottom on the original, but this is not essential. The shooting alley is made up as shown in Figs. 1 and 2 and is fitted to the inside of the frame with screws. The edge next to the frame should be 1/8 in. below the edge of the frame for glass clearance, providing a glass top is to be used. The marble hole, shown at A, is best not drilled until a more complete assembly has been made.

The ball return is made next. This includes a number of parts, as can be seen in Fig. 3, as well as the actual ball return which is simply the main plywood body. At one end of the ball return is fitted a leg, which gives the board the required tilt. The opposite end is fitted with a chute, down which the marbles run. On both sides of the plywood body are rabbeted strips, as shown. The whole unit fits inside the main frame, 1 5/8 in. down from the edge, as can be seen in Fig. 6.

Next, make the ball release. This is simply a piece of 1/4 in. plywood, having holes drilled in it corresponding to the holes in the



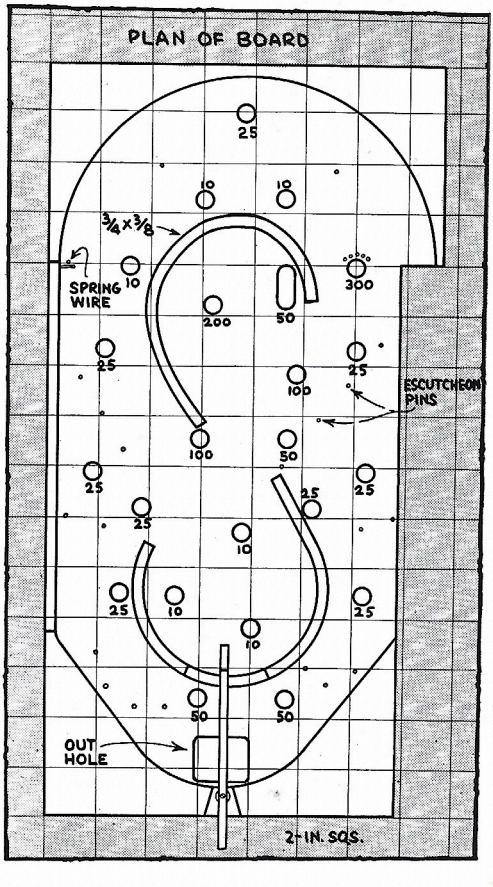
Action Marble Game

playing board, but offset. Do not drill these holes at this time—cut the panel to size and fit it in place in the rabbeted slides. It should slide easily. A spring at one end draws it tightly against the far end of the main frame, while a rod fitted to a small angle serves to pull it forward.

Fig. 8 shows the ball release in place, and is a general cutaway view of the board. The gun is made from a 3/16 in. stone bolt about 3½ in. long. Bearings for this are given by small end bells or by drilling a hole through a ½ in. bolt, turning the bolt into the frame. The essential part about the gun fitting is that when fully drawn, the wood or rubber tip should come just behind the marble hole.

There's plenty of excitement in this simple action marble game. Balls falling into the lower wood ring can be advanced with the bumper lever to high-scoring holes.

RIGHT, PLAN OF PLAYING SURFACE



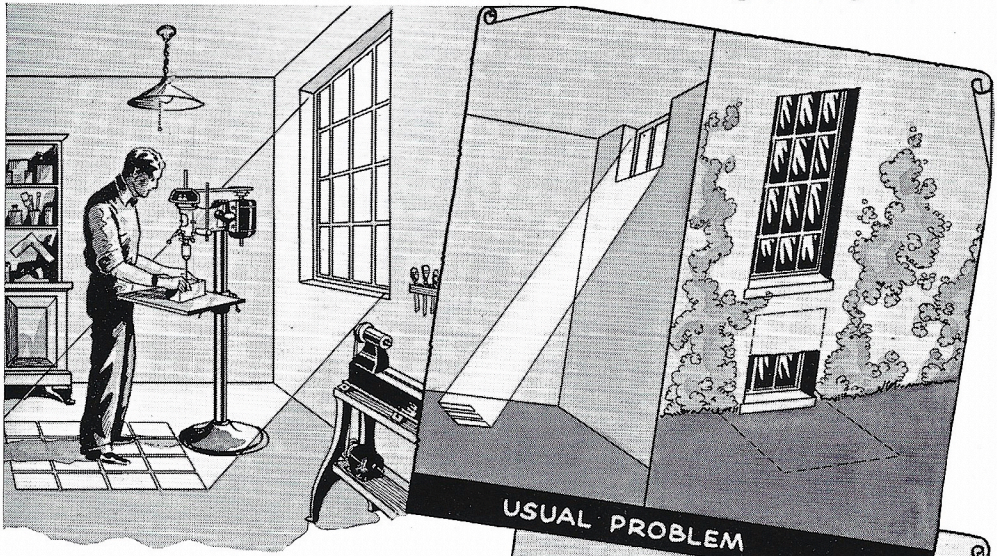
The drawing on this page shows the board layout. The holes are ¾ in. diameter to take the ⅝ in. steel balls which shoud be used. The wood guides are band sawed to shape, the portion where the bumper lever works being cut down to ⅛ in. thick. The lever itself is a length of strap iron. It should be bent at such a position as to strike the ball above center, not below center.

After the holes in the playing board have been drilled, the playing board is used as a pattern in marking the holes in the ball release panel, offsetting one from the other about 1 in. This will put solid wood below the playing board when the release is drawn back by spring tension; when the release handle is pulled, all of the holes line up, the marbles drop through to the ball return, run down to the ball chute, and are thus lined up for a new game. The holes in the ball release should be ⅞ in. diameter.

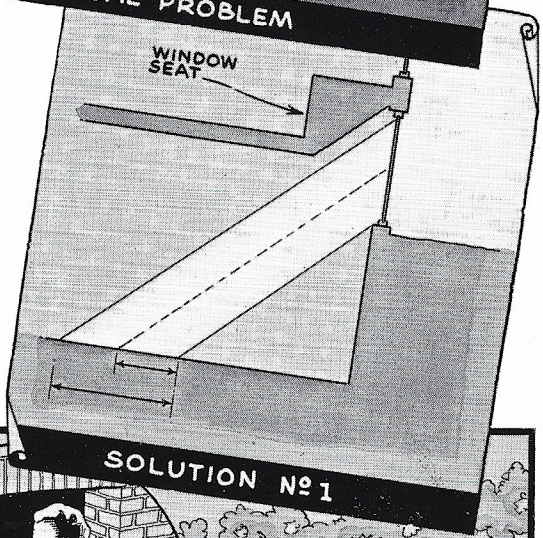
A glass top should be cut to fit over the playing surface, the size of the glass being such as to fit inside the main frame. It is held in place by means of 5/16 by ¾ in. moulding strips which are screw-fastened with oval-head screws.

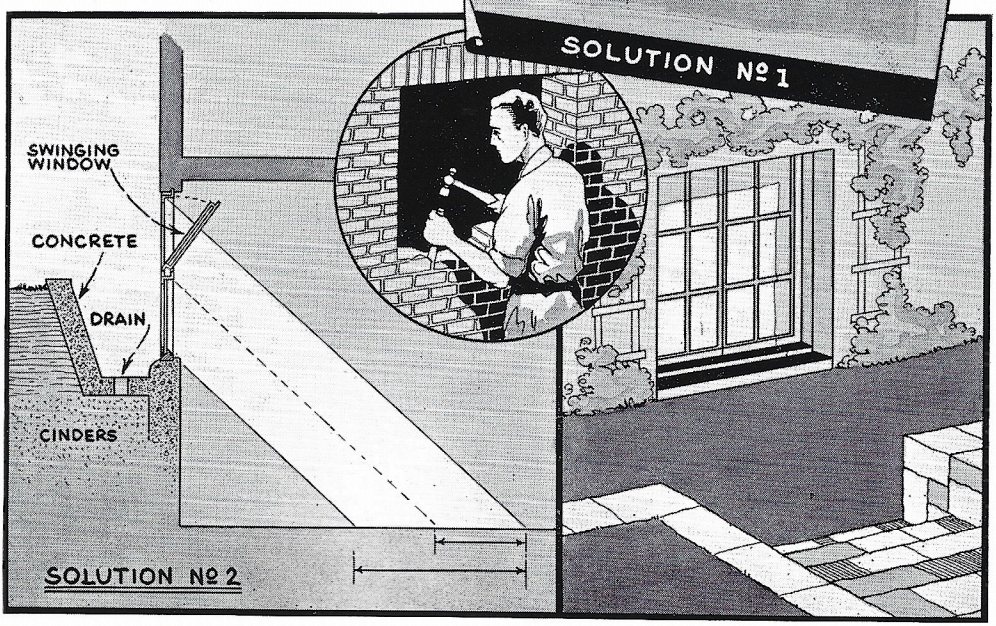
DAYLIGHTING

THE BASEMENT SHOP

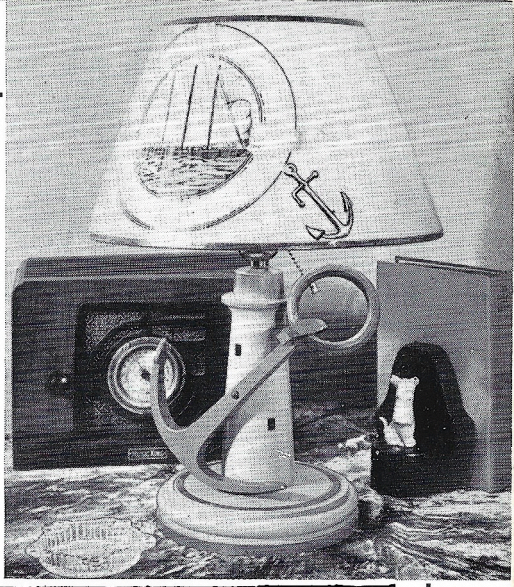


Most basement shops are very poorly illuminated as far as free daylight is concerned. Mr. Average Craftsman working on a Sunday afternoon has to turn on the switch even though the sun is shining brightly outside. The solution to this problem, while fairly apparent, is usually not worth while in view of the amount of daytime work. Nevertheless, it would be much nicer from several viewpoints to have *lighter* basements, and there has been a recent architectural trend in this direction. Two solutions for new work or remodeling are shown here. The style in which the window is extended upward by utilizing the space under a window seat kills two birds with one stone. An optional method of treatment where the window is extended downward is shown at the lower right. Terracing in this manner is, of course, much neater than the concrete drain, but is not always possible.

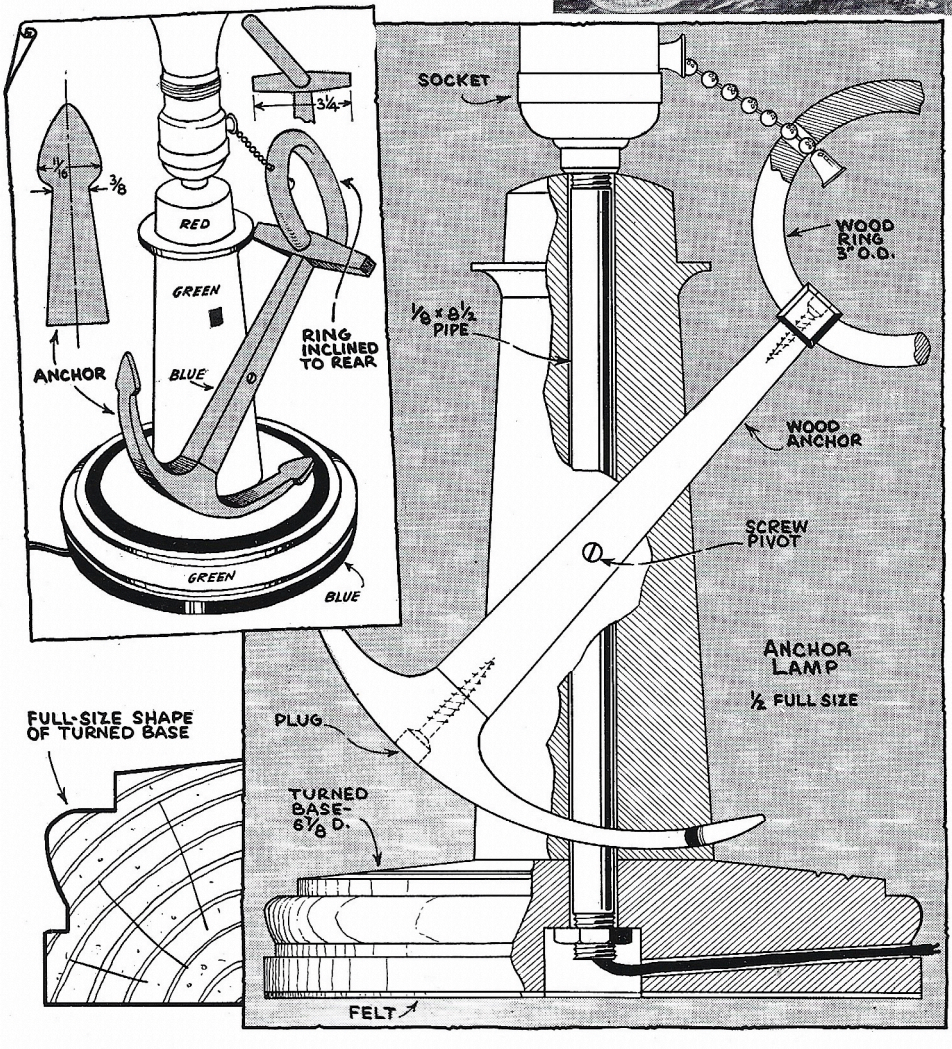




ANCHOR LAMP

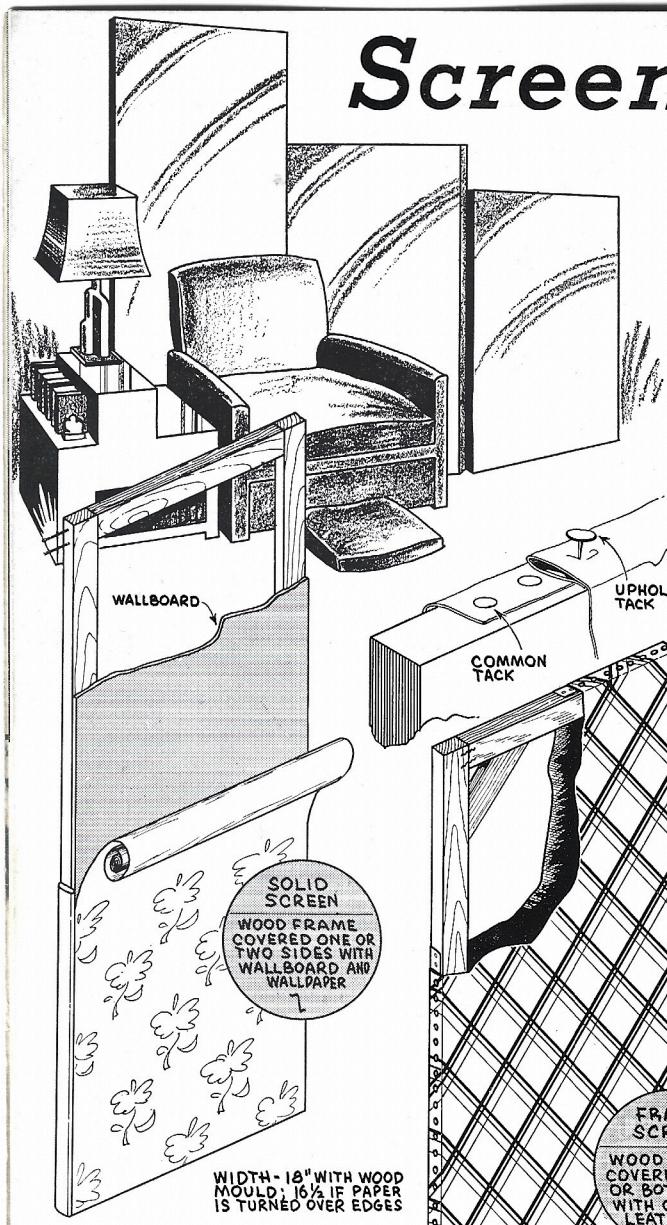


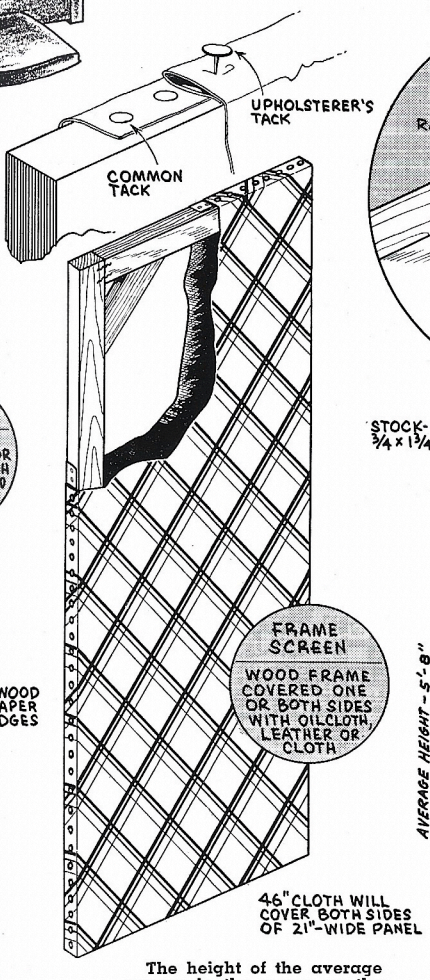
You don't have to be a sailor to appreciate the neat design of this novel anchor lamp—it's just the thing for den or bedroom. The stem or lighthouse is readily turned between centers. Don't forget to make the bottom slightly hollow so that it will seat smoothly on the base. The hole for the pipe can be drilled on the drill press, drilling from both ends. The base is easily turned by attaching the stock to the 3 in. faceplate. Since a paint finish is used, white pine can be used for both turnings. The shape of the anchor is shown one-half full size in the plan and should be expanded to full size on paper. The flukes are cut out on the band saw and attached to the stem. The ring at the top can be turned on the lathe or shaper or cut by hand as desired, or a wood curtain ring can be used. It will be noted that the ring is inclined to the rear so that it will line up with the chain of the socket. The anchor is pivoted on the lighthouse; pressure on the ring turns on the light. In this size, the shade should measure about 12 in. diameter bottom, 7 in. diameter top, by 7½ in. deep.

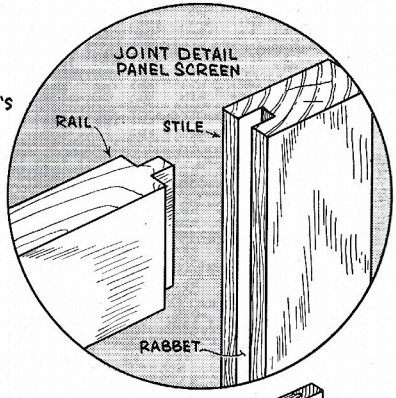


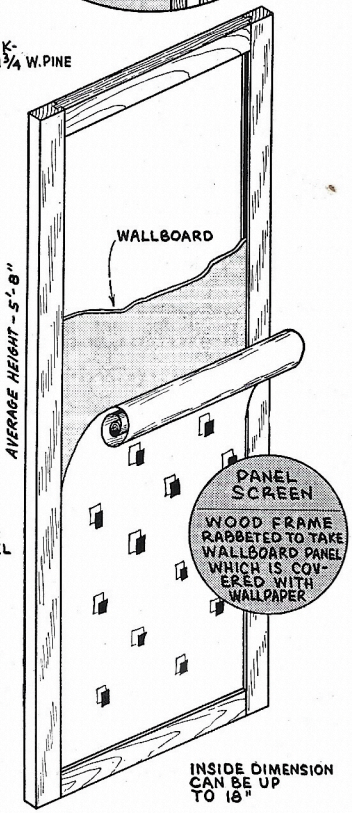
Screen Stories

FOLDING screens are at once both useful and decorative, and it is a rare home which cannot use at least one in some capacity or another. There are three general methods of construction, as shown in the drawing, all of which run to about the same thing. The stock used averages ¾ by 1¾ although some workers prefer lighter material and others, again, heavier. Dado cuts for panel screens are ¼ in. wide to take either ¼ in. plywood or wallboard. Frame screens are gener-

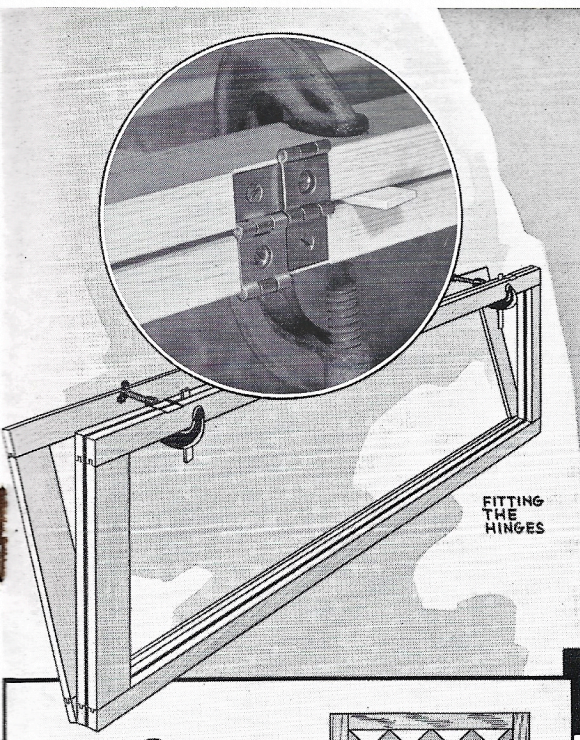

WALLBOARD
SOLID SCREEN
WOOD FRAME COVERED ONE OR TWO SIDES WITH WALLBOARD AND WALLPAPER
WIDTH - 18" WITH WOOD MOULD; 16½ IF PAPER IS TURNED OVER EDGES

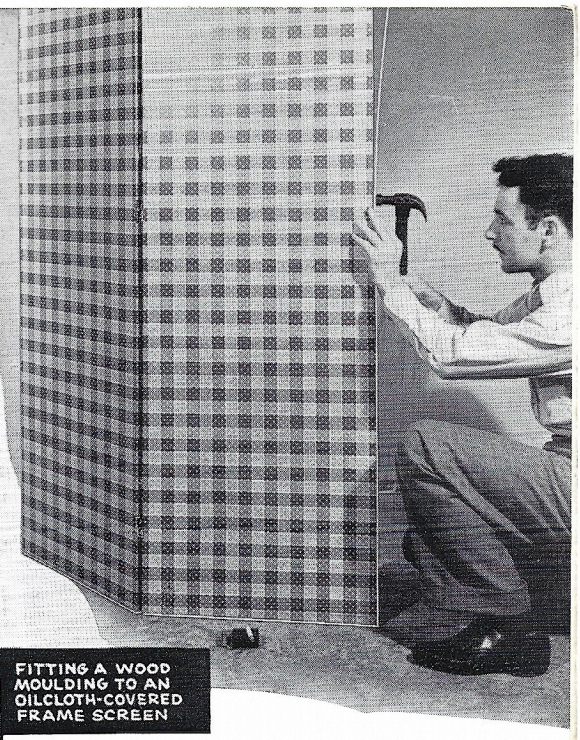

UPHOLSTERER'S TACK
COMMON TACK
FRAME SCREEN
WOOD FRAME COVERED ONE OR BOTH SIDES WITH OILCLOTH, LEATHER OR CLOTH
46" CLOTH WILL COVER BOTH SIDES OF 21"-WIDE PANEL



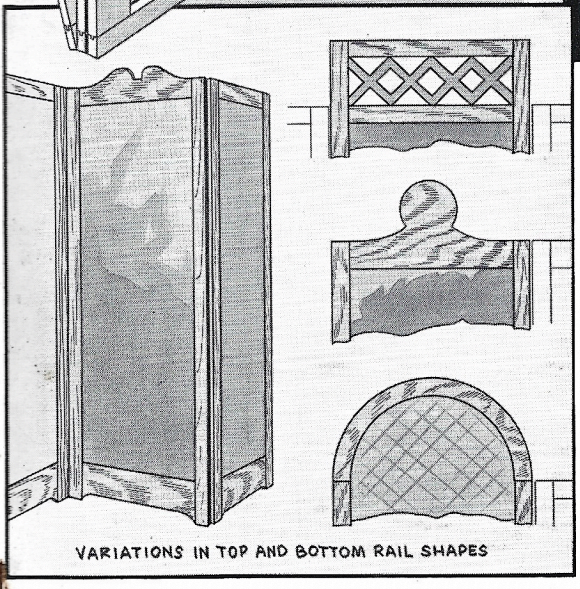

STOCK - ¾ x 1¾ W. PINE
WALLBOARD
AVERAGE HEIGHT - 5'-8"
PANEL SCREEN
WOOD FRAME RABBETED TO TAKE WALLBOARD PANEL WHICH IS COVERED WITH WALLPAPER
INSIDE DIMENSION CAN BE UP TO 18"

The height of the average screen is the same as the height of the average person—5 ft., 8 in. The width of each panel is somewhat dependent upon the covering material used. A pleasing width is 17 or 18 in. This fits in nicely with the width of standard wallpaper. ● Photo in corner shows the rail stock being tenoned with a straight moulding knife, after which the piece is ripped to exact widths.





FITTING A WOOD MOULDING TO AN OILCLOTH-COVERED FRAME SCREEN

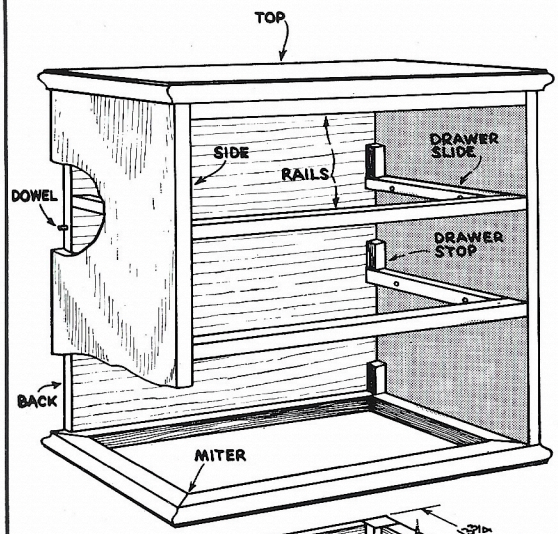


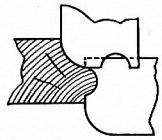
VARIATIONS IN TOP AND BOTTOM RAIL SHAPES

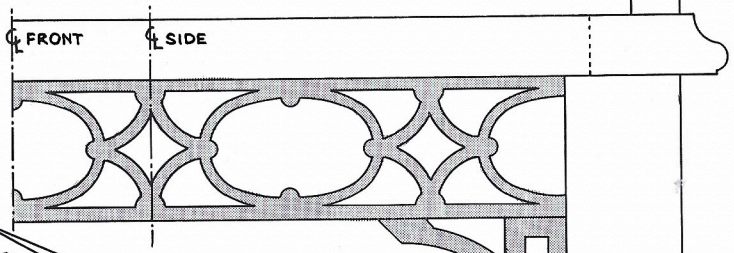
ally covered with oilcloth, finished off with upholsterer's tacks spaced about 3 inches apart. Gimp can be used, or the edges can be glued without tacks of any kind. Again, a wood mould can be applied.

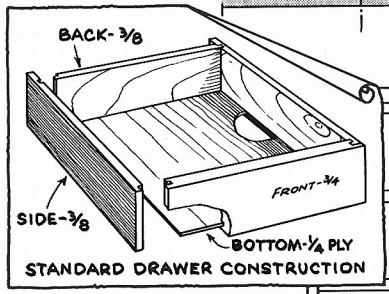
Two, three or four panels can be used, three being the most popular. The panels are hinged together with double acting hinges, which permit the panels to be hinged both ways. These hinges should be of the ¾ by 1¾ in. size. They cost about twelve cents each. Gains should be made for the hinges to set in, as shown in the detail, so that the panels will be close together when opened. Also, when fitting the hinges, the panels should be slightly separated with wood spacers, as shown in the detail. Determine these points by making a sample joint. Don't forget to allow for the thickness of any later covering material, tacks, etc. Two hinges to a joint are sufficient; three only if the framework is exceptionally heavy and subject to constant handling.

A HIDEAWAY KITCHEN FOR CROWDED QUARTERS
RED OILCLOTH WITH WHITE BIRDS PASTED IN PLACE
ANIMAL CUTOUTS AND WOOD BOTTOM FOR THE NURSERY

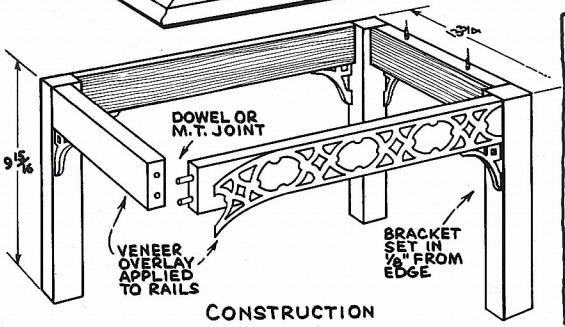








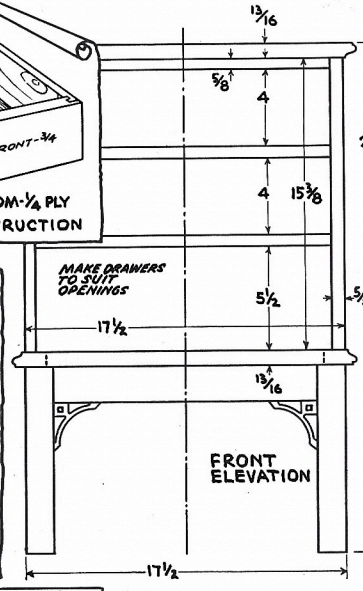
STANDARD DRAWER CONSTRUCTION



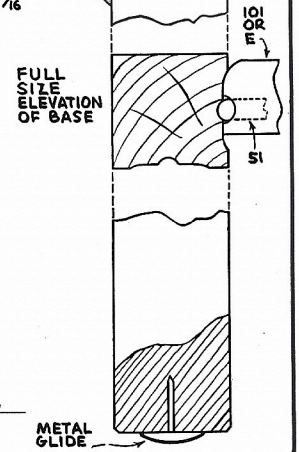
CONSTRUCTION

MATERIAL LIST

CHEST:
TOP- 1 Pc 13/16 FF x 15 1/8 x 18 3/4
SIDES- 2 Pcs 5/8 FF x 13 3/4 FF x 15 3/16 FF
BACK- 1 Pc 5/8 FF x 16 1/4 FF x 15 3/8 FF
RAILS- 3 Pcs 5/8 FF x 1 1/2 FF x 16 1/4 FF
BOTTOM- 6 FT. LIN. x 13/16 FF x 1 13/16 FF
DRAWER FRONTS-
2 Pcs 3/4 FF x 4 FF x 16 1/4 FF
1 Pc 3/4 FF x 5 1/2 FF x 16 1/4 FF
DRAWER SIDES AND BACKS
6 1/2 FT. LIN. x 4 - 3 1/2 FT. LIN. x 5 1/2
DRAWER BOTS.- 1 Pc 1/4 PLY 1' x 4'
BASE:
LEGS- 4 Pcs 1 1/2 SQ. FF x 10
*RAILS- 52" LIN. x 7/8 FF x 1 7/8 FF
OVERLAY- 1 PC. 4 x 26
BRACKETS- 1 Pc 1/4 FF x 2 3/4 x 6
*DOWEL JOINTS FF=FINISHED SIZE



FRONT ELEVATION



FULL SIZE ELEVATION OF BASE

PROJECT: CHEST OF DRAWERS
CLASSIFICATION: GENERAL FURNITURE

№ DELTA 67
BLUEPRINT

ISSUE: The DELTAGRAM - OCTOBER-1937
DRAWING: H. TRACING: M. CHECK: J.T.

Chest of DRAWERS

THE construction of a chest of drawers is always interesting, and, while the work may appear simple at first glance, the builder quickly acquires a deep measure of respect for these "box" problems. An important aid to good work is accurate setting of the circular saw fence, and casework construction of this kind should never be attempted without first checking the gage at exact right angles to the saw blade. Equally important, too, is the level position of the table in relation to the vertical position of the saw.

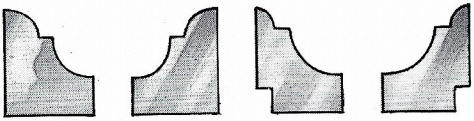
The construction is best started by determining the widths necessary and glueing up stock to fit. While this is setting up, the base can be made. Either mortise-and-tenon or dowel joints can be used between rails and legs. The m.t. is undoubtedly the stronger, but doweling is much simpler and altogether satisfactory. Take the design for the overlay from the full-size blueprint, or project it to the proper size from the smaller reproduction shown on the opposite page. The design is transferred to the veneer stock. Each of the four pieces can be cut out separately with a sharp knife, or, the required number of strips can be made into a pad to permit scroll sawing. Sand the surface of the rails perfectly smooth before glueing the overlays in place, and do this portion of the work before the assembly of rails to legs has been made. The brackets are cut from ¼ in. stock and are glued and bradded in place, about ⅛ in. in from the edge of the leg. If desired, the chest can be built without the ornamentation supplied by the overlay and the leg brackets. It can be seen that these would be a little out of place if the piece were being made as a small utility chest for a boy's room.

The upper portion of the chest offers no particular difficulties providing that your circular saw cuts square and true. The moulding at top and bottom can be run in on either the saw or shaper by using the cutters shown. The back of the chest is a solid piece, butted between the two sides. If the chest is intended for wall use only, a 5/16 in. plywood back, rabbeted in place, can be substituted.

No dimensions are given for the drawers. It is advisable at this point to take all measurements from the work in order to insure a good fit. A standard method of drawer construction is shown in one of the drawings, and this or any other method of working can be followed. The necessary hardware will include six drawer pulls and four metal glides. These can be purchased from any craft supply house or from a local hardware store.

In walnut or mahogany, this small chest of drawers makes an attractive piece of furniture for the home.

New Cove-and-Bead Shaper Cutters



D-136 D-135 D-137 D-138

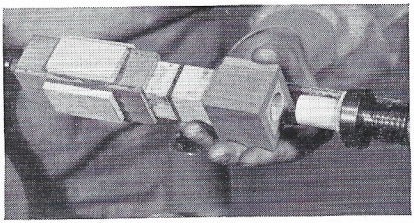
No. 1179 Set of Cove-and-Bead Shaper Cutters, as shown, together with D-139 straight cutter and D-132 and D-134 spacing collars **$5.55**

In answer to a popular demand, Delta has added a complete set of cove-and-bead cutters to an already very complete line of shaper knives. The new set comprises four matched cutters—two male cutters, two cope cutters, one of each set being right hand, the other left hand. The set is similar to cutters D-123 to D-126 inclusive, with the exception of the change in shape. Cabinet shops doing casework construction with coped joints will require the full set; the home craftsman, who may have very little use for the complete set, will appreciate the popular cove-and-bead shape obtainable with a single cutter. For prices of separate cutters and collars, see the new Delta catalog.

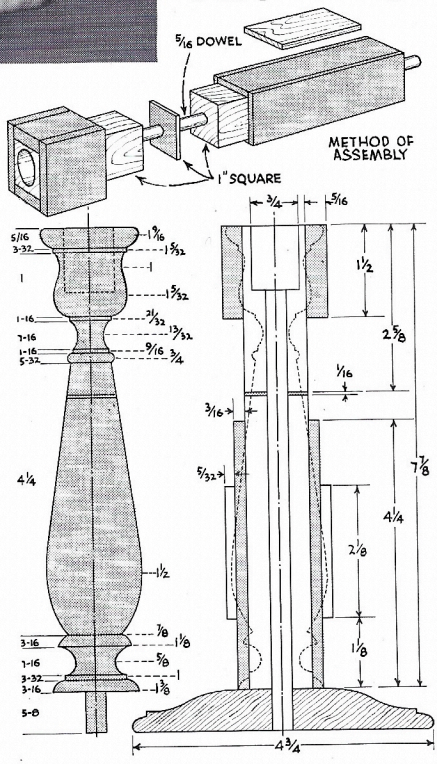
Built-up CANDLESTICK

THIS makes a simple yet attractive project in built-up or inlay turning. The essence of this work is using care in making the assembly preparatory to turning. The job cannot be rushed. Start by making up the two 1 in. square blocks. Drill the shorter one to take the candle, and drill both to take the through 5/16 in. dowel. Make the thin 1 in. square from some contrasting wood—walnut and maple are recommended—and make the assembly. After the glue has dried, fit two side blocks at the candle end and two side blocks at the base end, allowing them to project slightly. When the glue has dried, sand them flush and fit the second set of blocks. There yet remains a final set of blocks which must be fitted to make the bulge of the stem.

To turn, fit a short length of wood on the screw center and turn a plug which will be a tight fit inside the hole in the work. Fit the work over the plug, catching the other end with the tailstock center. Make certain that the work is exactly centered. Turn in the usual manner to the plan given in the drawing. The base is a faceplate turning.



Built-up or inlay turning, of which this candlestick is a simple example, is productive of many artistic and pleasing effects when properly handled. Freakishness and a mere piling-on of pieces should be avoided. Best results are obtained when the color scheme is confined to four woods at the most, and, in simple pieces like the one shown, two woods are sufficient.



BOOKS *for your Library*

GETTING THE MOST OUT OF YOUR BAND SAW

Entirely new and revised in the popular 6 by 9-inch size, this shop manual on band saw and scroll saw operation brings the reader a wealth of information on the care, operation and maintenance of these machines. 48 pages. Price, postpaid.....25c

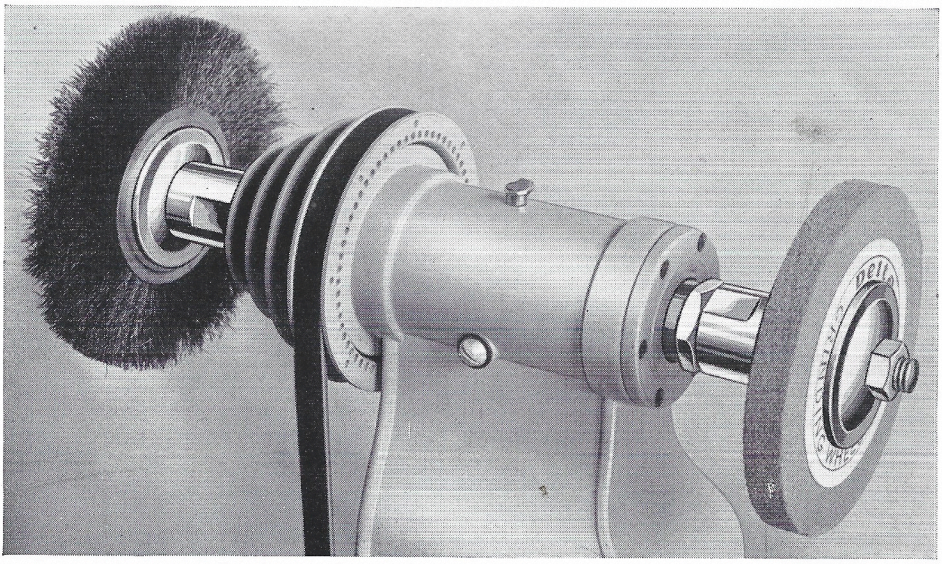
GETTING THE MOST OUT OF YOUR DRILL PRESS

Now in a new third edition, with new ideas, new pictures, new tables—the one book which should be in every shop library. Size, 6 by 9-inch, 48 pages. Price, postpaid 25c

PRACTICAL DELTA PROJECTS (Book 4)

Following a practice which has proved popular during the past three years, Delta has selected the best projects from Volume 6, The Deltagram, for reissue in book form. Nos. 1, 2, and 3 are also available, each 10c

Screw-on GRINDING WHEEL ARBOR



Useful for a Wide Variety of Lathe Operations

No. 144 Right Hand Thread

●

No. 145 Left Hand Thread

OWNERS of 11-in. Delta lathes will appreciate these new screw-on grinding wheel arbors. They turn on like a faceplate, there's not the slightest chance for anything to come loose in the middle of the job. Both right and left-hand threads are available, the left hand thread fitting the outer end of the lathe spindle. While they are called "grinding wheel arbors," these units can be used for dozens of jobs around the shop. The spindle is ½ in. diameter and will take any wheel, scratch brush, or other tool with ½ in. hole. These arbors are also useful for holding any style of wood chuck, since the standard thread of the spindle can be readily tapped into the back of the chuck.

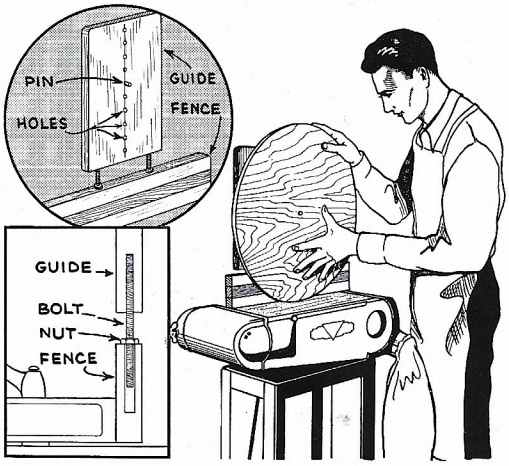
PRICE EACH

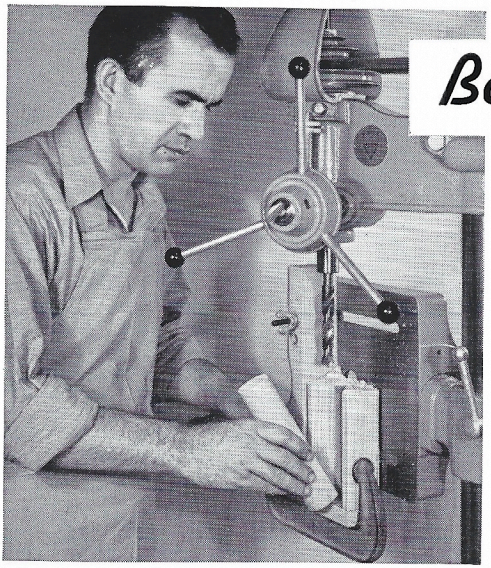
$1.25

Edge Sanding Circular Work on Belt Sander

PIVOT sanding of circular work on the belt sander can be done with the use of the simple jig shown in the drawing. This consists of a piece of ¾ in. stock measuring about 8 by 12-in. Holes are drilled at 1 in. intervals along the center of the board. The board has two holes in the under edge, into which are tapped two bolts. Corresponding holes, but a close slide fit, are drilled in the edge of the sander fence.

In use, an approximate pivot pin location is selected and the pivot pin (a ¼ in. dowel) is inserted in the hole. The work is fitted to the pin, then the adjusting nuts are turned so that the work comes in contact with the belt. A flat spot is then cut in the work to the right diameter, after which the work is slowly rotated to bring the whole edge to a perfectly circular shape.



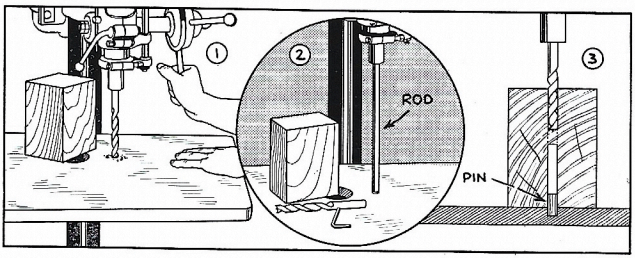


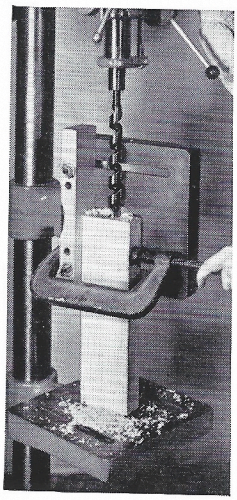
Boring DEEP HOLES

THE stroke of the 14-inch Delta drill press is 4 in., and the standard bit supplied has a twist of 4 in. What happens, then, when you want to bore a hole 7 in. deep—almost twice the length of the fluted portion of the drill?

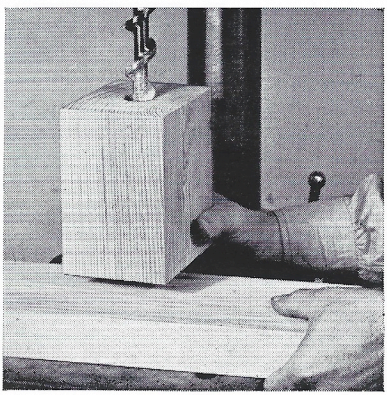
Perhaps the simplest solution to work of this kind is to drill from both ends. The upper photo is an example. The table is tilted vertical, and the work, a cylinder, is aligned by means of a vee block. The capacity of a 4-in. twist is thus increased to 8 in. In every case where the drilling is done from opposite sides, great care must be exercised in lining up the work. A useful method is shown in the sketch. The required drill is chucked, and a hole is drilled in the auxiliary wood table or in a piece of wood clamped to the table. A length of metal rod or a straight piece of dowel stock is now placed in the chuck, its purpose being to correctly align the hole exactly below the chuck. The final step in the operation is as shown in Fig. 3. The hole is drilled as deeply as possible from one side, then a wood guide pin is placed in the hole in the table and the work is placed over the guide pin. Thus aligned, the second hole meets the first hole for a perfect through shot.

Where a longer twist than 4 in. is being used, the bit may be long enough to go through the work, but the operator must yet contend with the 4 in. stroke of the machine. One method of working is shown in the center photo. The table is vertical, and the work is clamped securely in place. The end of the work is supported on a second drill press table. The first cut is made to the fullest depth possible—4 in. The feed lever is then released and the work pushed up 4 in. The supporting table and the clamp are then reset, and a second cut of 4 in. is made, and so on until the hole is complete. Another method is shown in the lower photo. The first full stroke is made, sinking the drill to a depth of about 4 in. in the work. The feed handle is then released, but the drill stays in the work. The table can then be raised to support the work in its new position, or, a base block can be slipped under the work, as shown, to give it the required elevation.

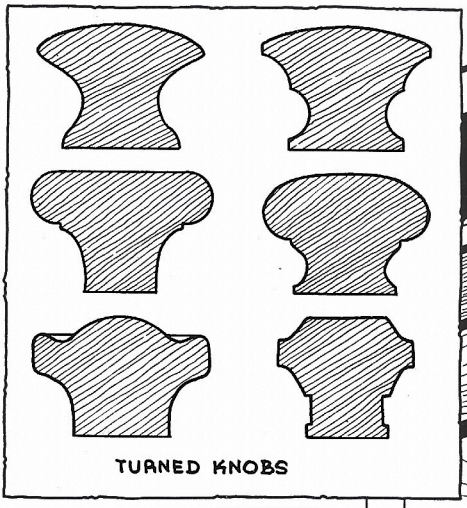


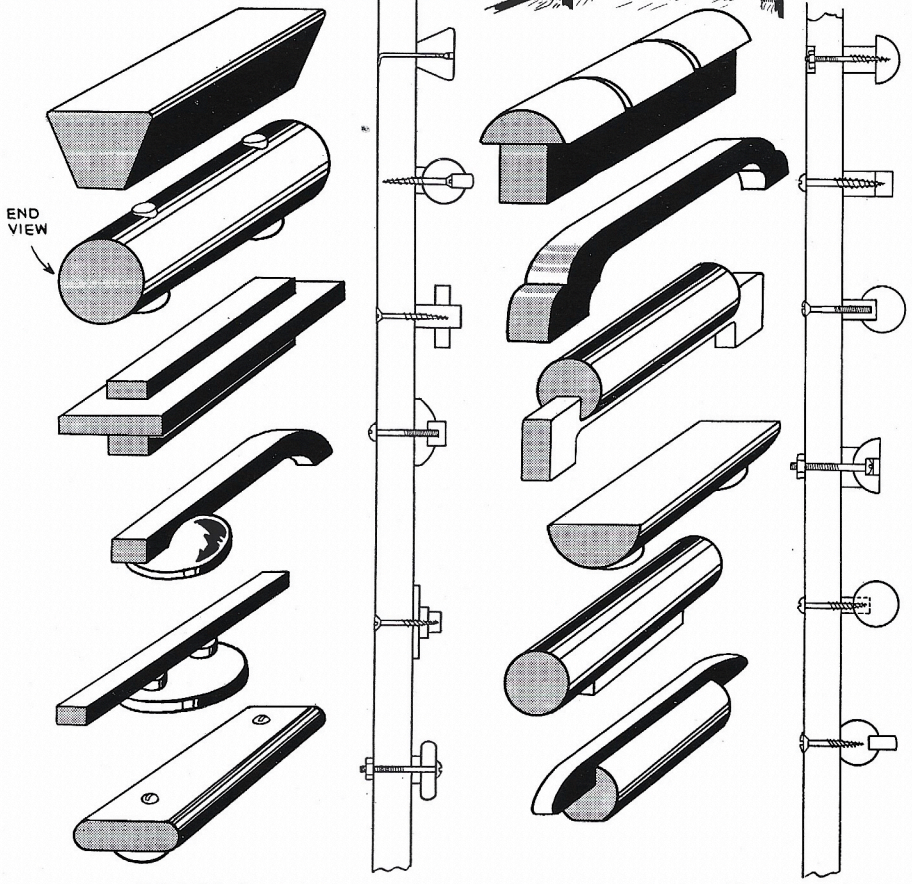


In all deep hole drilling, cutting should not continue after the flutes of the bit have passed below the work surface. Where it is absolutely necessary to do this, the bit should be lifted frequently in order to permit clearing the hole of chips.



DRAWER PULLS





MODERN DESIGNS (END VIEWS APPROXIMATELY ½ FULL SIZE)

That's What I Think—

The Old Army Game

San Francisco, California — In a recent Deltagram, I was very much interested in the article about the craftsman who designed his shop so that he could pack up and move on short notice. This struck a sympathetic chord with me on account of my being in the army and having to do so much moving. In fact, I am now under orders to leave San Francisco for a station in Chicago in August. A few months ago I purchased one of your 11-inch lathes and have revamped it so that it can "go where I go." The legs are from the sides of an old iron cot and are unbolted and packed inside. The plywood sliding doors of the packing box on the front are removed and the base of the lathe set into the opening to form the bottom of the box and is secured to the box by lag screws. The whole unit is very compact and I have found it quite successful.

C. V. S.

Turning Long Ones

Hartford, Conn—Recently I had an order for a reproduction of an antique bed, but the posts were longer than the capacity of my Delta lathe. I got around it by using one of your drill presses, lining it up so that I could mount the lathe tailstock to the base of the drill press (a bench model). It's possible some other craftsman could use the idea. Incidentally, I didn't get my last issue of The Deltagram.

W. C. C.

Profitable Sideline

Sioux City, Iowa—I am enclosing the card relative to the Deltagram, which is a pleasant visitor to me every issue. I would like to have it continued indefinitely. Although I am local advertising manager of the Sioux City Tribune, I still have much time in the evenings to do many things and have had at times two men working making different wooden novelties for sale. I have nearly forty patterns and ideas designed by myself and all are on sale at a nice profit. Before coming to Sioux City, I was in St. Paul and during the puzzle rage had twelve Delta saws making puzzles and whatnots. Delta tools have always been my favorite and my shop is exclusively Delta with all attachments.

H. K.

Irish Posies

Morris, Minn.—Thanks for the last issue of the Deltagram. I would like at this particular time to write about my pet peeve as regards publications like yours, and the magazines of similar nature—namely, that you devote all your energies to furniture, gimcracks, or what have you, but **never do I find** anything to help the man who wants to build his wife a new arrangement of kitchen cabinets and other handy service built-ins. Neither anything for one who might want to tear out the old woodwork in his house and replace it with new trim of his own design. What I mean is interior woodwork of all kinds — baseboards, cornices, picture mouldings, door framing, window framing valences, etc.

Also, you tell us how to make furniture, but how the dickens do you repair a chair for instance that is loose in SOME joints, not all—how do you get the other tight joints apart without ruining the furniture?

A. I. A.

Who's Who

Hartford, Conn.—I enclose my application for next year's Deltagram and check for 50c. I feel rather guilty in not having answered the previous requests in the Deltagram designed to determine readers' interest in that publication in the past. I subscribe to all of the general woodworking magazines that I have knowledge of and I honestly feel that the Deltagram has certain special features such as the "Craftsheet," "Shop Notes," etc., that are not found in these publications and which are particularly interesting to me as they are built around Delta tools.

Here is a minor suggestion which may or may not appeal to you. I do not know how your other readers feel, but during the years that I have read your Deltagram, I have run across certain faces in the magazines which now seem quite familiar and have wondered, "Who are these people?" It seems to me that you might introduce a few of these Deltagram characters through your pages just as a special for one or two issues.

A. E. H.

They Liked It

Brownsville, Texas—It may interest you to know that the publication of my figured firescreen in the Deltagram (January, 1937) brought in inquiries from other shops from New York to 'Frisco. People seem to like this design, and I may make something out of it although it is not at all likely that products of this kind could be sold very far away. I am going to work along the river and as far as San Antonio and Houston, and keep an eye on your catalog in case I need more Delta machines.

T. J. R.

Community Shop

Cleveland, Ohio—I am enclosing my 50 cents to cover cost of Deltagram. At the same time, I would like to tell you about the way we work our shop, since the old community spirit may appeal to other readers if you care to acquaint them with the idea. As you know, there isn't a whole lot of room in an apartment house for a shop. However, I found a man down the hall who had a scroll saw tucked away in the basement, and another fellow had a piece of a circular saw. So, when we moved in, I rounded up this equipment and a few other pieces, and the result is that now we have a pretty nice little corner in the basement all to ourselves. Wire netting does for a partition and keeps the (well, you know how kids are) while admitting air, light and heat as required. I will send you some snapshots if and when.

G. B.

Model T Chair

Franconia, N. H.—Some three or four years ago, I got tired of having to carry the usual type of lawn chair about. There seems to be only two kinds, those that folded up and pinched your fingers, and those that simply but emphatically kicked the bark off your shins. So, I devised my own chair, and have called it the model T. My friends liked it and I made a lot for them and that changed my little saw into a big one. Last summer, a hotel man saw the ones I had for my own use and I had some made for him by a furniture company at Whitefield. I was so tired of making them myself by this time that I was glad to find out I could have them made somewhere else. One thing led to another, and pretty soon I found myself swamped with orders. And, of course, people wanted cushions to go with it, so we are making those.

So if you figure this all out, the eight inch saw made the chair that bought the ten inch saw that made the chair that bought the scroll saw that made the handholds that sold the hotel man who bought the chairs that bought the drill press that made the chairs that bought the band saw, and so on....

A. B.

P. S. I forgot to say, it's a darn good chair.

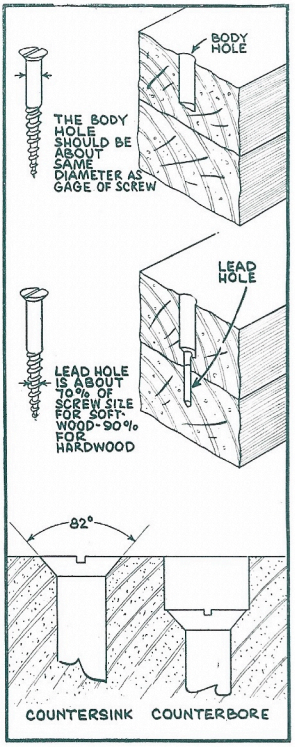
Deltacraftsheet

No. DP2
Drills for
Wood Screws
The Deltagram—Oct., 1937

DRILLS FOR WOOD SCREWS

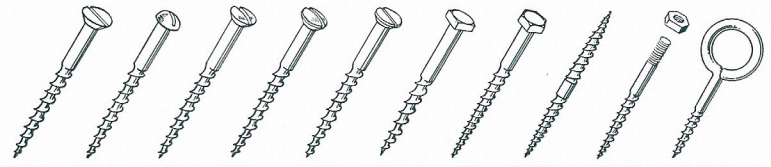
Gage of Screw	Dia. in Decimals	Body Hole Drill	Lead Hole Drill	C'Bore Drill
0	.058	53	68	32
1	.071	49	57	20
2	.084	44	56	16
3	.097	40	52	4
4	.111	33	52	B
5	.124	1/8	52	F
6	.137	28	47	L
7	.150	24	47	O
8	.163	19	42	S
9	.177	15	42	T
10	.190	10	38	X
11	.202	5	38	7/16
12	.215	7/32	38	29/64
14	.242	D	31	33/64
16	.269	I	28	37/64
18	.294	19/64	23	41/64

Lead holes are seldom used for Nos. 0 and 1 gage screws. In soft wood, lead holes are unnecessary for gages less than No. 6.


BODY HOLE
THE BODY HOLE SHOULD BE ABOUT SAME DIAMETER AS GAGE OF SCREW
LEAD HOLE
LEAD HOLE IS ABOUT 70% OF SCREW SIZE FOR SOFT-WOOD-90% FOR HARDWOOD
82°
COUNTERSINK
COUNTERBORE

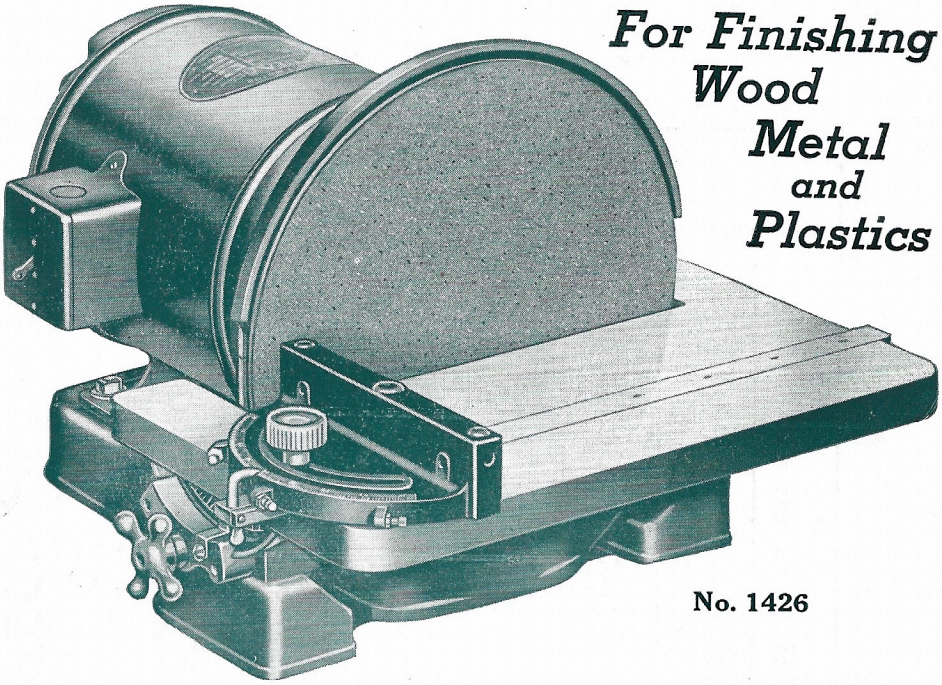
LENGTHS MADE IN EACH GAGE

Length	Gages	Length	Gages	Length	Gages	Length	Gages	Length	Gages
1/4	0–4	3/4	2–16	1 1/2	3–24	2 1/2	5–24	4	8–30
3/8	0–9	7/8	2–16	1 3/4	5–24	2 3/4	6–24	4 1/2	12–30
1/2	1–12	1	3–20	2	5–24	3	6–26	5	12–30
5/8	1–14	1 1/4	3–24	2 1/4	5–24	3 1/2	8–26	6	12–30



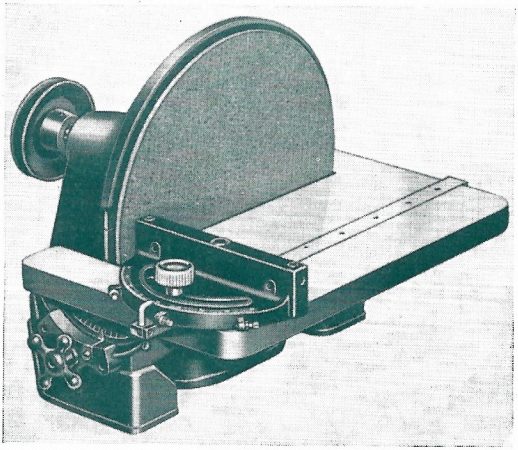
NEW 12" Disk Sanders

For Finishing Wood Metal and Plastics



No. 1426

Belt and Direct-Motor Drive Models



No. 1425 Belt-Drive Disk Sander, with disk, drive shaft and arbor pulley, but without miter gage..... **$24.85**

No. 1426 Direct-Motor-Drive Disk Sander, with disk, base and table. Without gage or motor..... **$18.85**

From production to basement shop, the disk sander has long played an important part in the finishing of shop products. Now, Delta offers two new and improved models of this popular finishing unit, machines with capacity and convenience to suit the varied demands of the finishing room. From its completely machined, true-running 12" disk to its large table and husky spindle carried on self-sealed ball bearings, the new Delta Belt-Drive Disk Sander is designed for long life, low power consumption and accurate, dependable results. The direct-motor-drive model can be used with any standard Delta ½ H.P. motor, and makes a compact and neat installation. Investigate before you buy. If it's a disk sander you want, you can't do better than a Delta.

DELTA MFG. CO.

600-634 EAST VIENNA AVENUE
MILWAUKEE, WISCONSIN

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